REMARKS

Claims 50-103 are presently pending. Claims 52, 54, 56, 65, 67, 77, 79, 90 and 92 have been amended. Claims 98-103 have been added.

Applicants respectfully request reconsideration of the application in view of the foregoing amendments and the remarks appearing below.

Objection to the Claims

The Examiner has objected to claim 56 as depending from the wrong claim. In particular, the Examiner states that claim 56 should depend from claim 55 rather than claim 54.

Applicants agree with the Examiner that claim 56 should indeed depend from claim 55 and have amended claim 56 accordingly. Consequently, Applicants respectfully request that the Examiner withdraw the present objection.

Rejections under 35 U.S.C. § 112, Second Paragraph

The Examiner has rejected claims 52-54, 65, 67, 77, 79, 90 and 92 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicants regard as their invention. In particular, the Examiner states that the acronym "HLA" is not properly defined in these claims.

Applicants have amended claims 52, 54, 65, 67, 77, 79, 90 and 92 to denote that "HLA" stands for "high level of abstraction" as indicated in the specification. Therefore, Applicants respectfully request that the Examiner withdraw the present rejection.

Rejections under 35 U.S.C. § 103

The Dunworth et al./Liddy et al. Combination

The Examiner has rejected claims 50, 51, 55-57, 63, 64, 68-70, 75, 76, 80-82, 87-89 and 93-95 (independent claims underlined for convenience) under 35 U.S.C. § 103 as being obvious in view of U.S. Patent No. 5,930,474 to Dunworth et al. and U.S. Patent No. 5,873,056 to Liddy et al., stating Dunworth et al. disclose a method, computer readable medium and system containing all of the limitations of these claims except for certain features, e.g., extracting user-defined fields values, filtering a plurality of retrieved documents so as to obtain a refined set of

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documents, and associating weights with at least some user-defined fields. The Examiner then asserts that Liddy et al. disclose these limitations and further asserts that it would have been obvious to a person having ordinary skill in the art at the time of the invention to utilize the features disclosed by Liddy et al. in the method, computer readable medium and system disclosed by Dunworth et al. Applicants respectfully disagree.

Dunworth et al. disclose a software system that allows users to access, via corresponding Internet browsers, information based on geographical location at one level and then by topic at a next level down. A user selects a desired geographical location using geographical maps and pointing and clicking on the specific location of interest. Once the user has selected a geographical location of interest, the use can select a topic of interest using a topical map. Information relating to the selected topic is retrieved by the system from any one of a local content database, a yellow pages database, and the Internet via a translation of the user's menu selections into either a set of search engine queries or a set of Web destinations.

Liddy et al. disclose a system for classifying text utilizing natural language processing techniques. At a high level, the Liddy et al. system utilizes subject vectors to represent texts under consideration. The subject vectors vary as a function of the content and subject matter of the texts. Using various techniques for comparing and processing the subject vectors, the subject , vectors can be used for classifying documents containing the texts and retrieving documents containing the texts based on subject matter of the texts.

Regarding independent claim 50, this claim requires, among other things, the step of developing a set of search arguments relating to one or more interests of a user. In rejecting this claim, the Examiner asserts that Dunworth et al. disclose this step at col. 13, lines 32-34, col. 2, lines 54-58, and col. 9, lines 13-17. Applicants respectfully disagree.

In the cited passages of cols. 9 and 13, Dunworth et al. describe how a user uses either a geographical map or topical map to select, respectively, a geographical location or topic of interest. This is accomplished simply by mapping a screen location on which the user clicks to a URL that corresponds to the map location on which the user clicked. The URL directs the system to the information relating to the geographic location or topic selected. At col. 2, lines 54-58, Dunworth et al. describe how a user's menu selections can be translated into a set of

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search engine queries or a set of Web destinations. Importantly, in each of these cited passages, there is no disclosure or suggestion of a step of developing a set of search arguments, as required by claim 50. In the context of claim 50, the plain and ordinary meaning of the word "developing" is "arising and then increasing or progressing to a more complex state." [Definition adapted from the Encarta on-line dictionary definition of "develop," i.e., "to arise and then increase or progress to a more developed state." See the exhibit attached hereto.]

Consequently, the "developing" limitation of claim 50 requires more than simply a predetermined mapping of screen (map) locations to corresponding URLs or a predetermined "translation" of menu selections to a set of search queries or Web destinations. In both of these instances in the Liddy et al. patent, nothing is developed. The user's selection simply causes a predetermined result. Since neither the Dunworth et al. patent nor the Liddy et al. patent disclose or suggest the development of search arguments relating to one or more interests of a user, the combination of these two patents cannot render claim 50 obvious.

Regarding independent claims 50, 63, 75 and 87, each of these claims require, among other things, a limitation directed to developing a set of user-defined fields relating to one or more interests of a user. In rejecting these claims, the Examiner asserts that Dunworth et al. discloses these limitations at col. 13, lines 43-45, col. 24, lines 66-67, col. 35, line 1, and col. 9, lines 13-17. Applicants respectfully disagree.

Each of these cited passages is directed to the Dunworth et al. system mapping a URL to a user selection. This mapping cannot reasonably be considered developing a set of user-defined fields, as required by each of independent claims 50, 63, 75 and 87. As discussed above, the word "developing" requires more than mere mapping.

Furthermore, the term "user-defined fields," under its plain and ordinary meaning, denotes data input fields defined by a user. The cited passages have nothing to do with data input fields or user-defined fields. Indeed, in the Dunworth et al. system the user does not define anything. The user merely makes selections. Any defining relating to the Dunworth et al. system is performed by the designer(s) of the Dunworth et al. system. Since neither Dunworth et al. nor Liddy et al. disclose the developing of user-defined fields, the combination of the two

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patents cannot render independent claims 50, 63, 75 and 87, nor claims 51-62, 64-74, 76-86 and 88-97, obvious.

Also regarding independent claims 50, 63, 75 and 87, each of these claims requires, among other things, limitations directed to reading each retrieved document and extracting from each document a user-defined field value and then entering the user-defined field values into a second database. In rejecting these claims, the Examiner asserts that Liddy et al. disclose the step of extracting a user-defined field value at col. 1, lines 16-21 and that Dunworth et al. disclose the step of entering the user-defined field values into the second database at col. 5, lines 22-24, col. 24, lines 66 to col. 25, line 1, and col. 19 lines 61-63. Applicants respectfully disagree.

At col. 1, lines 16-21 Liddy et al. mention that their system and method may be used in connection with "knowledge extraction" generally. That is, a user may use the Liddy et al. system and method to search for documents of interest and glean or extract knowledge or information from the retrieved documents.

At the cited locations of the Dunworth et al. patent, Dunworth et al. disclose features that allow a user to make selections relative to geographic locations and topics so that the Dunworth software retrieves information of interest to the user. For example, at col. 24, line 66 to col. 25, line 1, Dunworth et al. describes a URL field for the yellow pages database. This URL field is established by the designer(s) of the Dunworth et al. software and may contain a predetermined URL (i.e., not entered by a user) for linking the user to the URL destination. Similarly, at col. 19, lines 61-63 Dunworth et al. discuss in the context of the geographical database pre-defined label fields and predetermined values for these fields. None of the fields and field values of the Dunworth et al. system are user defined or user entered.

The Dunworth et al. software is a navigation tool that is not user modifiable, nor allows a user to populate a database. Consequently, Applicants assert that the Dunworth et al. patent cannot stand for the proposition of allowing a user (i.e., not the software designer(s)) to enter user-defined fields values into a second database, as required by rejected independent claims 50, 63, 75 and 87. In addition, since Dunworth et al. do not disclosure a database front end that allows a user to populate a database with information, those skilled in the art would not have any

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reason to combine the teachings of Dunworth et al. and Liddy et al. in the manner the Examiner asserts. Therefore, Applicants assert that the rejection is improper.

Like the Dunworth et al. software, the Liddy et al. system and method does not include any features that allow a user to populate user-defined fields with information extracted from documents. Again, the Liddy et al. system and method are for classifying documents using natural language processing techniques to create subject vectors that represent the content and subject matter of the texts contained in documents. Since the combination of the Dunworth et al. and Liddy et al. patents lack the limitations of independent claims 50, 63, 75 and 87 that extracted user-defined fields values are entered into a second database, the combination cannot render these claims obvious.

Regarding claims 51, 64, 76 and 89, each of these claims depend from one of independent claims 50, 63, 75 and 87, which, as discussed above, are not rendered obvious by the cited combination. For at least this reason, claims 51, 64, 76 and 89 are not obvious in view of this combination.

Regarding claims 55, 56, 68, 69, 80, 81, 93 and 94, each of these claims includes, among other things, a limitation directed to associating a weight with each of at least some user-defined fields. Based on Applicants' understanding of the subject matter of the Dunworth et al. and Liddy et al. patents, neither disclose user-defined fields. Therefore, the weights that Liddy et al. disclose in the context of their predetermined subject fields codes do not anticipate the weights of claims 55, 68, 80 and 93. Since neither of the Dunworth et al. and Liddy et al. patents disclose or suggest associating weights with user-defined fields, any combination of these patents cannot render these claims obvious.

Regarding claims 57, 70, 82 and 95, each of these claims includes, among other things, a limitation directed to the tallying of the weights associated with the user-defined fields of claims 55, 56, 68, 69, 80, 81, 93 and 94. In rejecting claims 57, 70, 82 and 95, the Examiner asserts that Liddy et al. disclose the tallying of weights at col. 9, lines 20-26 and col. 5, lines 10-11. Applicants respectfully disagree.

In rejecting claims 55, 68, 80 and 93, the Examiner asserts that Liddy et al. disclose the "weights" limitation of these claims at col. 5, lines 10-11. The weights disclosed at this passage

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are weights corresponding to subject fields codes, which are derived from summing occurrences of words for each subject field code. The subject code weights are contained in the subject code vector and are not summed. Rather, it is the word occurrences that are summed, as described at col. 9, lines 20-26. Applicants assert that the Examiner is improperly applying the word summation techniques described at col. 9, lines 20-26 to the weights disclosed at col. 5, lines 10-11. Applicants believe that these two passages describe concepts that are separate and distinct from one another and, as such, cannot reasonably be combined as the Examiner has done in rejecting these claims. Since neither the Liddy et al. patent nor Dunworth et al. patent disclose the weight tallying limitation of claims 57, 70, 82 and 95, the combination of these two patents cannot render these claims obvious.

Regarding claim 88, this claim depends from independent claim 87, which as discussed above, is not obvious in view of the cited combination. For at least this reason, claim 88 is not rendered obvious by the combination.

The Dunworth et al./Liddy et al./Chen et al. Combination

The Examiner has rejected claims 52-54, 65-67, 77-79 and 90-92 under 35 U.S.C. § 103 as being obvious in view of the Dunworth et al. and Liddy et al. patents, discussed above, and further in view of U.S. Patent No. 6,728,752 to Chen et al., stating Dunworth et al. and Liddy et al. disclose a method, computer readable medium and system containing all of the limitations of these claims except for limitations directed to a high-level of abstraction (HLA) cluster and an HLA framework form. The Examiner then asserts that Chen et al. disclose these limitations and further asserts that it would have been obvious to a person having ordinary skill in the art at the time of the invention to utilize the features disclosed by Chen et al. in the method, computer readable medium and system disclosed by the combination of the Dunworth et al and Liddy et al. patents. Applicants respectfully disagree.

Chen et al. disclose a system and method for classifying documents using vector representations and clustering documents according to similarities of their vector representations. The system and method also clusters users in a user population based on a quantitative determination of the similarities of the users.

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First, claims 52-54, 65-67, 77-79 and 90-92 are not obvious in view of the cited combination as being dependent from independent claims 50, 63, 75 and 87, which are not obvious for the reasons discussed above relative to the rejection in view of the Dunworth et al./Liddy et al. combination.

Second, claims 52-54, 65-67, 77-79 and 90-92 are not rendered obvious by the present combination since none of the Dunworth et al., Liddy et al. and Chen et al. patents disclose or suggest the steps of assigning retrieved documents to HLA clusters and filling out an HLA framework form. In rejecting these claims, the Examiner asserts that at col. 30, lines 13-17 Chen et al. disclose HLA clusters. Applicants respectfully disagree.

The passage at col. 7, lines 13-17 describes a "Clustering Report" (FIG. 24) that contains information relating to user clusters. Among the information contained in the Clustering Report is a list of the most characteristic keywords across all documents for a particular user cluster. Chen et al. describe the list of keywords as enabling "quick access to a high level abstraction of this modality. . . ." It is Applicants' position that the keyword list is the high level of abstraction that Chen et al. are describing. That is, based on the Chen et al. description of their system and method, and particularly the cited description of the Clustering Report, someone having ordinary skill in the art would not reasonably consider the user clusters to be "high-level of abstraction" clusters. Rather, those skilled in the art would understand that the keyword list provides a high level of abstraction view of the subject modality. One does not flow from the other. Consequently, it is Applicants' position that Chen et al. do not disclose the HLA clusters of the rejected claims.

In rejecting claims 54, 67, 79 and 92, the Examiner asserts that at col. 16, lines 29-32 and col. 7, lines 27-29 Chen et al. disclose the filling out of an HLA framework form, as required by each of these claims. Applicants respectfully disagree. Both of these cited passages, as well as the rest of the Chen et al. patent, are silent on the recited step. The only similarity that Applicants can identify is that in the passage of col. 16, lines 29-32, Chen et al. use the word "framework." However, this appearance of "framework" has nothing whatsoever to do with an HLA framework form, not to mention a step of filling out an HLA framework form. Since the Chen et al. patent, as well as the Dunworth et al. and Liddy et al. patents, fail to disclose the

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filling out of an HLA framework form, the cited combination cannot render obvious claims 54, 67, 79 and 92.

The Dunworth et al./Liddy et al./Bollay Combination

The Examiner has rejected claims 58, 60-62, 71-74, 83-86, 96 and 97 under 35 U.S.C. § 103 as being obvious in view of the Dunworth et al. and Liddy et al. patents, discussed above, and further in view of U.S. Patent No. 6,457,009 to Bollay, stating Dunworth et al. and Liddy et al. disclose a method, computer readable medium and system containing all of the limitations of these claims except for limitations directed to the population of user input forms. The Examiner then asserts that Bollay discloses these limitations and further asserts that it would have been obvious to a person having ordinary skill in the art at the time of the invention to utilize the features disclosed by Bollay in the method, computer readable medium and system disclosed by the combination of the Dunworth et al and Liddy et al. patents. Applicants respectfully disagree.

Bollay discloses a system and method of presenting a "generic" online form to a user that the user then populates with fields values. The Bollay system and method then utilizes the user-provided fields values to populate one or more "custom" online forms each custom formatted by the owner of the custom form. The generic form allows a user to fill out one generic form, while allowing the user to submit multiple custom online forms so that the user can avoid having to fill out each custom form sequentially.

First, each of claims 58, 60-62, 71-74, 83-86, 96 and 97 depends from one of independent claims 50, 63, 75 and 87, which are not rendered obvious by the Dunworth et al./Liddy et al. combination as discussed above. The Bollay patent does not provide the claim limitations missing from the Dunworth et al./Liddy et al. combination. Consequently, any combination of the Dunworth et al., Liddy et al. and Bollay patents cannot render obvious claims 58, 60-62, 71-74, 83-86, 96 and 97.

Second, those having ordinary skill in the art have no motivation to combine the Bollay teachings with the Dunworth et al. and Liddy et al. teachings in the manner asserted by the Examiner. This is so because neither the Dunworth et al. software nor Liddy et al. system and method have any need for the input forms disclosed by Bollay. Applicants assert that the only motivation to combine the Bollay teachings with the Dunworth et al. and Liddy et al. teachings is

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the hindsight motivation of the present claims. It is Applicants' position that the level of hindsight needed to combine the Bollay teachings with the Dunworth et al. and Liddy et al. teachings is impermissible in formulating an obviousness-type rejection. It is clear to Applicants that anyone having ordinary skill in the art, having reviewed the Dunworth et al., Liddy et al. and Bollay patents, would not arrive at the subject matter of claims 58, 60-62, 71-74, 83-86, 96 and 97 without these claims as a guide for bringing together limitations that are otherwise not obviously combinable. Therefore, Applicants believe that the present rejection is improper.

The Dunworth et al./Liddy et al./Chen et al./Bollay Combination

The Examiner has rejected claim 59 under 35 U.S.C. § 103 as being obvious in view of the Dunworth et al., Liddy et al., Chen et al. and Bollay patents, discussed above, stating Dunworth et al. and Liddy et al. disclose a method, computer readable medium and system containing all of the limitations of these claims except for limitations directed to the population of user input forms. The Examiner then asserts that Bollay discloses these limitations and further asserts that it would have been obvious to a person having ordinary skill in the art at the time of the invention to utilize the features disclosed by Bollay in the method, computer readable medium and system disclosed by the combination of the Dunworth et al. and Liddy et al. patents. Applicants respectfully disagree.

First, claim 59 depends from independent claim 50, which is not rendered obvious by the Dunworth et al./Liddy et al. combination as discussed above. The Chen et al. and Bollay patents do not provide the claim limitations missing from the Dunworth et al./Liddy et al. combination. Consequently, any combination of the Dunworth et al., Liddy et al., Chen et al. and Bollay patents cannot render obvious claim 59.

Second, claim 59 contains the limitation, among others, that the step of populating a first input form includes populating the form with known documents. In rejecting claim 59, the Examiner cites a passage at col. 10, lines 21-24 of the Chen patent that states that "the collection 120 comprises all known documents that will ever be processed by a system according to the invention." [Emphasis added.] This passage has nothing whatsoever to do with populating a user-input form with known documents, as required by claim 59.

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Third, as discussed above, Bollay discloses the populating of a generic user-input form by a user. However, there is no disclosure or even suggestion that the Bollay generic user-input forms are populated with known documents. Rather, a user populates the Bollay generic user-input form not with documents, but with information needed for carry out some sort of e-commerce, such as the airline ticket purchase example disclosed by Bollay.

Applicants' position is that there is no motivation for someone skilled in the art to combine these four patents as the Examiner has done, except using an improper amount of hindsight of claim 59. Again, it is clear to Applicants that anyone having ordinary skill in the art, having reviewed the Dunworth et al., Liddy et al., Chen et al. and Bollay patents, would not arrive at the subject matter of claim 59 without claim 59 as a guide for bringing together limitations that are otherwise not obviously combinable. Therefore, Applicants believe that the present rejection is improper.

In view of the foregoing, Applicants respectfully request that the Examiner withdraw all of the rejections made under 35 U.S.C. § 103.

New Claims 98-103

New claims 98 to 100 are directed to a method of analyzing a group of patent documents that includes, among other steps, the step of reviewing each patent document and extracting a problem solved statement from each patent document.

New claims 101-103 are directed to a computer-readable medium containing computer-executable instructions for facilitating the method of new claims 98-100.
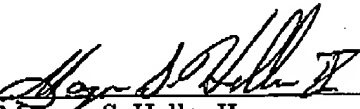
Applicants assert that the references of record, alone and in combination with one another and/or ordinary skill in the art, do not disclose or suggest the subject matter of claims 98-103. Therefore, Applicants submit that new claims 98-103 are patentable over the references of record.

Conclusion

In view of the foregoing, Applicants respectfully submit that claims 50-103, as amended, are in condition for allowance. Therefore, prompt issuance of a Notice of Allowance is

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respectfully solicited. If any issues remain, the Examiner is encouraged to call the undersigned attorney at the number listed below.

Respectfully submitted,

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Attachment

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